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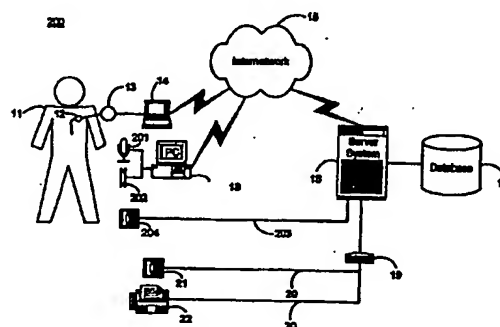
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(54) **System and method for providing normalized voice feedback from an individual patient in an automated collection and analysis patient care system**

(57) A system 200 and a method for providing normalized voice feedback from an individual patient 11 in an automated collection and analysis patient care system 10 are described. A set of collected measures 50 retrieved on a substantially regular basis is periodically received from a medical device 12 having a sensor for monitoring at least one physiological measure of an individual patient 11. The collected measures set includes individual measures which each relate to patient information recorded by the medical device. The collected measures set 50 are stored into a patient care record for the individual patient within a database 17. The database is organized to store one or more patient care records which each include a plurality of the collected measures sets. Voice feedback is spoken by the individual patient into a remote client 18 substantially contemporaneous to the collection of an identifiable device measures set. The voice feedback is processed into a set of quality of life measures which each relate to patient self-assessment indicators. The identified collected device measures set and the quality of life measures set are received and stored into the patient care record for the individual patient within the database. The identified collected device measures set, the quality of life measures set, and one or more of the collected device measures sets in the patient care record for the individual patient are analyzed relative to one or more other collected device measures sets stored in the data-

base server to determine a patient status indicator 54.



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## EUROPEAN SEARCH REPORT

Application Number  
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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
X	WO 98 07142 A (COHEN KOPEL H) 19 February 1998 (1998-02-19) * page 2, line 2 - page 14, line 4 * * page 17, line 32 - page 33, line 10; figures 2-5 *	1-23	G06F19/00 A61B5/00
X	US 5 357 427 A (LANGEN ET AL) 18 October 1994 (1994-10-18) * column 1, line 15 - column 10, line 47; figures 1-11 *	1,12	
A	US 5 544 661 A (DAVIS ET AL) 13 August 1996 (1996-08-13) * column 1, line 13 - column 2, line 15 *	2-11, 13-23	
A	US 5 390 238 A (KIRK DAN M ET AL) 14 February 1995 (1995-02-14) * column 2, line 57 - column 6, line 16; figures 1-5 *	1,12	
A	EP 0 342 859 A (HEALTH TECH SERVICES CORP) 23 November 1989 (1989-11-23) * page 2, line 43 - page 7, line 17; figures 1-4 *	1,12	TECHNICAL FIELDS SEARCHED (Int.Cl.7) G06F A61B G10L
The present search report has been drawn up for all claims			
Place of search <b>THE HAGUE</b>		Date of completion of the search <b>15 December 2000</b>	Examiner <b>Schenkels, P</b>
<p><b>CATEGORY OF CITED DOCUMENTS</b></p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons &amp; : member of the same patent family, corresponding document</p>			

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**ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.**

EP 00 20 2603

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15-12-2000

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 9807142 A	19-02-1998	US 6014626 A EP 0927417 A	11-01-2000 07-07-1999
US 5357427 A	18-10-1994	NONE	
US 5544661 A	13-08-1996	NONE	
US 5390238 A	14-02-1995	NONE	
EP 0342859 A	23-11-1989	US 4933873 A AT 140326 T AU 622175 B AU 3459889 A CA 1336842 A DE 68926801 D DE 68926801 T JP 1700087 C JP 2142533 A JP 3067686 B US 5442728 A US 5142484 A US 5868135 A	12-06-1990 15-07-1996 02-04-1992 16-11-1989 29-08-1995 14-08-1996 12-12-1996 14-10-1992 31-05-1990 23-10-1991 15-08-1995 25-08-1992 09-02-1999

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

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